

RUSANOV, B. V.

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Mechanics

①
Rusanov, B. V. Slow unsteady flow of a viscous fluid about a sphere. Doklady Akad. Nauk SSSR (N.S.) 90, 41-44 (1953). (Russian)

La méthode du mémoire analysé ci-dessus est étendue, sous des hypothèses semblables, à l'écoulement à symétrie sphérique d'un liquide visqueux autour d'une sphère animée d'un mouvement de translation rectiligne. Toutefois, l'auteur semble ignorer les travaux de M. Villat [Leçons sur les fluides visqueux, Gauthier-Villars, Paris, 1943, pp. 192-224] qui conduisent, par des voies entièrement différentes, à une solution un peu plus générale. Il est vrai que Villat ne démontre pas l'unicité de sa solution. J. Kravtchenko.

RUSANOV, E. V.

"Some Questions of Flow Around a Solid Body by a Viscous Liquid."
Cand Phys-Math Sci, Leningrad State U, Leningrad, 1954. (PZhMekh,
Sep 54)

SO: Sum 432, 27 Mar 55

Rusanov, B.V.

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4300

Rusanov, B.V. Slow unsteady flow about a circle

$$u = \frac{1}{4\pi t} \int_0^{2\pi} \int_D u^0(\xi, \eta) \exp\left(-\frac{(x-\xi)^2 + (y-\eta)^2}{4t}\right) d\xi d\eta$$

$$v = \frac{1}{4\pi t} \int_0^{2\pi} \int_D v^0(\xi, \eta) \exp\left(-\frac{(x-\xi)^2 + (y-\eta)^2}{4t}\right) d\xi d\eta$$

where D is the region external with regard to the circle $r = 1$ and u^0, v^0 are the given components of the nondimensional velocity at the initial instant of time.

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446110017-6

$\rho = \frac{1}{2} \cos \alpha$

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001446110017-6"

RUSANOV, B.V.

Equations of the theory of dissipating viscosity. Dokl. AN SSSR 104
no.3:368-371 S '55. (MLRA 9:2)

L.Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova. Pred-
stavlene akademikom V.I.Smirnovym.
(Rusanov, B.V.)

RUSANOV, B.V.

Slow unsteady motion of a viscous fluid in the semiplane.
Vest. Len. un. 11 no.13:109-118 '56. (MLRA 9:10)

(Viscosity)

RUSANOV, B.V.

Functional-invariant solutions to equations of the second order.
Dokl. AN SSSR 161 no.3:534-537 Mr '65.

(MIRA 18:4)

1. Leningradskiy politekhnicheskii institut im. M.I.Kalinina.
Submitted October 26, 1964.

Rusanov, B.V.

Rusanov, B.V.

Line-resolved stationary problem pertaining to the flow of viscous incompressible fluid around a solid of revolution at large Reynolds numbers. Vest. LGU 16 no. 1:118-127 '61.

(MIR 17:12)

(Hydrodynamics)

20766

S/043/61/000/001/008/010
C111/C222

16.7600
AUTHOR: Rusanov, B.V.

TITLE: The linearized problem of the flow around a body of revolution by a tenacious incompressible fluid for large Reynolds numbers

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no.1, 1961, 118-127

TEXT: The considered problem of flow around is linearized by representing the velocity field $\bar{u}$ in the form $\bar{u} = \text{grad } \varphi + \bar{v}$, where φ is the potential of the flow around the same body by an ideal fluid and $\bar{v}$ is an additional term the square of which is neglected. The Navier-Stokes equations linearized in this manner are used in the dimensionless form, where the magnitude a which describes the characteristic magnitude of the body is defined so that φ changes along the body meridian from zero at the nose to three in the final point. The potential φ and the flow function ψ for the flow around by an ideal fluid (the velocity in infinity equals 1 and has the direction of the axis of symmetry $\equiv z$ -axis) as well as θ -angles of the cylindrical coordinate system r, θ, z serve as generalized coordinates $q_1 = \varphi, q_2 = \psi$.
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The linearized problem...

$q_3 = 0$. Let ω be the θ -component of the velocity whirl, $q = \frac{u_1^2 + u_2^2}{2} + p$,
p -- dimensionless pressure, u_1, u_2 -- the φ and ψ -components of the
dimensionless velocity ($u_3 = 0$). The Navier-Stokes equations linearized
by $u_1 = U + v_1$, $u_2 = v_2$ read

$$\frac{\partial q}{\partial \varphi} = -\frac{1}{R} \frac{\partial \omega r}{\partial \psi}, \quad \omega = -r \frac{\partial q}{\partial \psi} + \frac{1}{Rr} \frac{\partial \omega r}{\partial \varphi}, \quad (2.2)$$

$$\omega = rU^2 \left\{ \frac{\partial}{\partial \varphi} \frac{v_2}{rU} - \frac{\partial}{\partial \psi} \frac{v_1}{U} \right\}, \quad q = p + \frac{U^2}{2} + Uv_1, \quad \frac{\partial}{\partial \varphi} \frac{v_1}{U} + \frac{\partial}{\partial \psi} \frac{rv_2}{U} = 0.$$

The boundary conditions read

$$v_1|_S = -U|_S, \quad v_1|_\infty = 0, \quad v_2|_S = 0, \quad v_2|_\infty = 0, \quad q|_\infty = \frac{1}{2}.$$

Let $\tilde{v}_1, \tilde{v}_2, \tilde{\omega}$ be the principal terms (for large R) of v_1, v_2, ω . Let
 $\frac{\tilde{\omega}}{r_0} = w$, $\phi = \int_0^r r_0^2 d\varphi$, $r_0 = r(\varphi, 0)$, $U_0 = U(\varphi, 0)$. With the aid of these
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The linearized problem...

notations the author finds that the velocity field in the neighborhood of the body is described by the following formulas:

$$w(\sigma, \psi) = \frac{\phi \sqrt{R}}{2\sqrt{\pi}} \int_0^\sigma \frac{w_0(\xi)}{\sqrt{(\sigma-\xi)^3}} e^{-\frac{R\psi^2}{4(\sigma-\xi)}} d\xi. \quad (6,2)$$

$$\tilde{v}_1 = \frac{1}{U_0} \int_0^\psi w(\sigma, \eta) d\eta. \quad (7,2)$$

$$U_0^2 = -\frac{1}{\sqrt{\pi R}} \int_0^\sigma \frac{w_0(\xi)}{\sqrt{\sigma-\xi}} d\xi,$$

$$w_0(\xi) = -\sqrt{\frac{R}{\pi}} \frac{d}{d\xi} \int_0^\xi \frac{U_0^2(\tau)}{\sqrt{\xi-\tau}} d\tau. \quad (8,2)$$

$$\tilde{v}_1 = -\frac{U_0}{r_0} \frac{\partial}{\partial \varphi} \frac{1}{U_0} \int_0^\psi \tilde{v}_1(\varphi, \eta) d\eta. \quad (9,2)$$

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The linearized problem...

For the force of resistance Z as well as for the velocity field and the pressure in a large distance of the body the author obtains the expressions

$$Z = 2V^2 a^2 \rho \sqrt{\frac{\pi}{R}} \int_0^{\infty} \frac{U_0^2(\tau)}{\sqrt{a_0 - \tau}} d\tau, \quad R = \frac{aV}{v},$$

$$\begin{aligned} u_1 &= \cos \chi + \frac{A}{R_1^3} - \frac{A}{\gamma} e^{-\frac{R_1 \gamma}{4}}, \\ u_2 &= -\sin \chi + \frac{A\gamma}{2\gamma} e^{-\frac{R_1 \gamma}{4}}, \\ \omega &= -\frac{AR_1}{2\gamma} e^{-\frac{R_1 \gamma}{4}}, \\ p &= -\frac{A \cos \chi}{R_1^3}. \end{aligned} \quad (6,3)$$

where the constant is determined by

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The linearized problem...

$$\Lambda = \frac{1}{2} \sqrt{\frac{R}{\pi}} \int_0^{\xi_0} \frac{v_0^2(\tau)}{\sqrt{\xi_0 - \tau}} d\tau. \quad (5.3)$$

Here V -- flow velocity in infinity, ρ -- density of the fluid,
 $\chi = \sqrt{r^2 + z^2}$ (position vector of the point), $\xi_0 = \int_0^3 r_0^2 d\varphi$, χ is the
 angle between χ and z -axis.
 There is 1 Soviet-bloc and 2 non-Soviet-bloc references.

Card 5/5

RUSANOV, B.V.

Stationary plane linearized problem in hydrodynamics of viscous incompressible liquids with high Reynolds numbers. Nauch. dokl. vys. skoly; fiz.-mat. nauki no.1:68-70 '58. (MIRA 12:3)

Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova.
(Hydrodynamics)

RUSANOV, B. V.

Rusanov, B. V. Slow unsteady motion of a viscous liquid in a half-plane. Vestnik Leningrad. Univ. 11 (1956) no. 13, 109-118. (Russian)
The linearized Navier-Stokes equations for incompressible plane flow become in proper units (*) $\frac{\partial \bar{w}}{\partial t} = \Delta \bar{w}$ and (**) $\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} = 0$, where $\bar{w} = (u, v)$.

The author seeks a solution in $v \geq 0$, $t \geq 0$ such that $\bar{w}(x, y, 0) = \bar{w}^0(x, y)$ and $\bar{w}(x, 0, t) = \bar{w}^0(x, t)$. By assuming first that $\bar{w}^0(x, y) \in C^1$ and $\bar{w}^0(x, t) \in C^1$, constructing Fourier series solutions and then passing to the limit as $t \rightarrow \infty$, he obtains integral representations for $\bar{w}, p$. He proves that these $\bar{w}, p$ actually are the desired solution if $\bar{w}^0$ is continuous except for a finite set of values $x = x_i$ independent of t , and $\frac{\partial \bar{w}^0}{\partial x}$ and $\frac{\partial \bar{w}^0}{\partial t}$ are continuous wherever $\bar{w}^0$ is C^1 .

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exists $N(x) \geq \max(|\bar{w}^0|, |\partial \bar{w}^0 / \partial x|, |\partial \bar{w}^0 / \partial t|)$ such that $\int_{-\infty}^{\infty} N(x) dx$ converges; (3) $\lim_{|x| \rightarrow \infty} \bar{w}^0 = 0$ uniformly for all t ; and (4) $\lim_{t \rightarrow 0} \bar{w}^0 = 0$ uniformly for all x . If also $\lim_{t \rightarrow 0} \max_{x \in \mathbb{R}} |\partial \bar{w}^0 / \partial x| = 0$, then for any $M > 0$, $\bar{p}$ is continuous in (x, y, t) except at $(0, 0, 0)$ and $\bar{p} \leq M$ for $0 < t \leq 1$ and $|x|, |y| \leq 1$. If only for $0 < t \leq 1$ and $|x|, |y| \leq 1$, $\bar{p}$ is continuous and $\bar{p} \leq M$, then the solution $\bar{p}$ is unique. He also shows that if both

$$\lim_{t \rightarrow \infty} \bar{w}^0 = \bar{w}_0(x) \text{ and } \lim_{t \rightarrow \infty} \partial \bar{w}^0 / \partial t = 0$$

uniformly for all x , then

$$\lim_{t \rightarrow \infty} \bar{w}(x, y, t) \text{ and } \lim_{t \rightarrow \infty} \bar{p}(x, y, t)$$

satisfy the steady state form of (*) and (**) with boundary values $\bar{w}_0(x)$.
J. H. Giese (Aberdeen, Md.)

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JR

TITOV, A. I.: RUSANOV, D. ZE.

Nitration, Paraffins

Effect of nitrogen oxides and of nitric acid upon mercury-paraffins; use of reaction as a method for studying nitrations of paraffins., Dokl. AN SSSR, 82, No. 1, 1952.

Monthly List of Russian Accessions, Library
of Congress, May 1952. UNCLASSIFIED.

RUSANOV, D. Ye. and TITOV, A. I.

"The Action of Oxides of Nitrogen and Nitric Acid on Mercury Paraffinic Compounds.
Utilization of the Reaction for the Investigation of the Nitration of Paraffins,"
Dokl. AN SSSR, 82, No. 1, pp 65-68, 1952.

Translation W-231339, 20 Jun 1952.

TITOV, A. I.; RUSANOV, D. YE.

Nitration, Paraffins

Effect of nitrogen oxides and of nitric acid upon mercury-paraffins; use of reaction as a method for studying nitrations of paraffins., Dokl. AN SSSR, 82 no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED

RUSANOV, D. YE.,; LITOV, A. I.

Nitration, Paraffins

Effect of nitrogen oxides and of nitric acid upon mercury-paraffins; use of reaction as a method for studying nitrations of paraffins., Dokl. AN SSR, 82, No. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED

RUSANOV, E.; BALEVSKA, I.; PAVAZOVA, M.; MILINGOV, K.

Nitrogen-containing fractions of the gastric juice and their
changes in experimental proctitis. Izv. inst. fiziol. (Sofia)
8:177-193 '66.

RUSANOV, E.; BALEVSKA, P.

A spectro-chemical analysis of trace elements in the human blood.
Izv. Inst. Biol. (Sofia) 8:195-199, 1964

Distribution of trace elements in serum proteins. Ibid. 1201-207

RUSANOV, E.A.

Using magnetometry for studying rare-metal carbonate massifs.
Razved. i okh. nedr 30 no.7:30-33 J1 '64.

(MIRA 17:12)

1. Tsentral'nyy nauchno-issledovatel'skiy gornorazvedochnyy institut
tsvetnykh, redkikh i blagorodnykh metallov, Moskva.

1. List of programs on the stability of a solid solution
obtained in Hebbler's reaction. See, J. Am. Chem. Soc., 71:
181-186 (1949).

2. Description of behavior of color solutions obtained in Hebbler's
reaction. Ibid., 189-197.

3. Proposed method for Hebbler's reaction. Ibid., 198-200.

RUSANOV, E1; BALEVSKA, P.

The loss of nitrogen during its determination with the
Kjeldahl-Nessler method. Izv. inst. fiziol. (Sofia) 6:307-
316 '63.

(CHEMISTRY, ANALYTICAL) (NITROGEN)

RUSANOV, E. H.

25757 RUSANOV, F. H. Novyye Drevesno-Kustarnikovyye Porody Dlya ozeleneniya
GORODOV uzbekistana. Doklady Akad. Nauk. UZ SSR, No. 4, 1948,
s. 22-27.-Rezyume na uzbek. Yaz.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948.

DOBRZHANSKAYA, A.K.; RUSANOV, F.D.

Occupational therapy of reactive states. Zhur.nevr.i psikh. 61
no.10:1555-1556 '61. (MIRA 15:11)

1. Tsentral'nyy nauchno-issledovatel'skiy institut sudebnoy
psikhiatrii imeni Serbskogo (dir. - dotsent G.V.Morozov), Moskva.
(OCCUPATIONAL THERAPY) (NEUROSES)

SAKHMEROV, G.P., kand.tekhn.nauk; YEVLANOV, M.G., kand.tekhn.nauk; RUSANOV, F.F.,
kand.tekhn.nauk

Liquid metal forging. Trudy MATI no.62:116-134 '65.

(MIRA 18:10)

BYALKOVSKAYA, Vera Sergeyevna; ~~RUSANOV~~, Fedor Fomich; ZALESSKIY, V.I.,
professor, retsenzent; LAPSHIN, V.A., inzhener, retsenzent;
BYKHENVAL'D, A.V., kandidat ekonomicheskikh nauk, redaktor;
BOGOLIUBOVA, I.Yu., redaktor izdatel'stva; MODEL', B.O., tekhnicheskiy redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor

[The economics of a new-type forge shop] Ekonomika kuznitsy novogo
tipa. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956.
145 p. (MLRA 9:12)

(Forging)

1. RUSANOV, F. F.
2. USSR (600)
4. Valves
7. Valve stamping by the pressure method, Avt. trakt. prom., No. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

L 1567-65 WNT(l)/LWT(m)/EWA(d)/LWP(t)/LWP(k)/LWP(z)/LWP(L) IJP(e) MJW/JD/DA
ACC NR: AT5027923

SOURCE CODE: UR/2536/65/070/062/0116/0134

AUTHOR: Sakharov, G. S. (Candidate of technical sciences); Yevlanov, N. G. (Candidate of technical sciences); Rusanov, F. F. (Candidate of technical sciences)

ORG: Moscow Aviation Technology Institute (Moskovskiy aviatsionnyy tekhnologicheskii institut)

TITLE: Pressure-die forging of molten metal

SOURCE: Moscow. Aviatsionnyy tekhnologicheskii institut, Trudy, no. 62, 1965.
Obработка давлением легких сплавов (Pressure working of light alloys), 116-134

TOPIC TAGS: hot die forging, molten metal forging, metal press, magnesium containing alloy, aluminum containing alloy, solid mechanical property, metal casting, metal surface

ABSTRACT: This is a continuation of a previous investigation (G. S. Sakharov, N. G. Yevlanov, Shtampovka tonkostennykh detaley iz zhidkogo metalla, Trudy MATI, no. 57, Oborongiz, 1963) with the difference that it deals with the dependence of the mechanical properties, structure, precision and quality of the surface of forgings on the technological parameters of the process. The material investigated was high-quality alloys AL9, AK6, D1, AL7, V95 and D16 melted in an electric furnace and poured into the die and the forging equipment consisted of a 200-ton hydraulic press and a 180-ton friction press. It is established that under specified conditions (e.g.

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heating of die to 180-200°C, pouring in metal at 700-710°C within 6-7 sec, 3-4 blows) the intricately shaped castings (housings, ribbed panels) obtained are of satisfactory quality. They have a cast structure with defects characteristic of castings: zonal segregation, shrinkage porosity and cracks, and these defects can be reduced to a minimum by applying an optimal thermomechanical regime } a factor that also determines the precision of the forgings. Further, formation of surface defects in the form of dark spots has been observed: these defects are presumed to be associated with the oxidation kinetics of molten alloys. The greatest proneness to form surface dark spots is displayed by the forgings of Mg-containing alloys: Mg is less noble an element than Al and has a high vapor pressure and diffusion rate; in the process of melting Mg tends to form various chemical compounds with N₂, Si and other elements, in the form of dark-colored thin oxide films. This assumption was verified by other experiments in which the surface of forgings of alloys containing no Mg (e.g. silumin, Al and AL7 alloys) displayed no defects of this kind. Blowing chlorine through the melt appears to be an effective measure to prevent the appearance of dark spots at the surface. It is further established that the appearance of surface defects (dark spots) is associated neither with the die design (closed or open die) nor with the character of deformation (static or dynamic) nor with the temperature and pressure regimes. Moreover, in pressure-die forging of molten metal, a hydraulic press is preferable to a friction press, since its technological stability is higher. Orig. art. has: 6 figures, 9 tables

SUB CODE: 011,13/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 000

IS
Card 2/2

RUSANOV, F.N.

Ficus krishnae DC in the greenhouses of the botanical gardens
of the U.S.S.R. Biol. Glav. bot. sada no. 57 10% '65. (MIRA 18:9)

1. Botanicheskiy sad AN Uzbekskoy SSR, Tashkent.

RUSANOV, F.N.

Rusanov, F.N. "Hybrid Hibisci," Byulleten' Glav. botan. sada, Issue 1. 1948
p. 28-62

SO: U-2898, Letopis Zhurnal'nykh Statey, No. 1, 1949

RUSANOV, F.N.
25757

Novyye Drevesno - Kustarnikovyye Porody Dlya Ozeleneniya Gorodov Uzbekistana.
Doklady Akad. Nauk Uz SSR, No 4, 1948. S. 22-27
Rezyume Na Uzbek. Yaz

SO: LETOPIS NO. 30, 1948

RUSANOV, F. N.

PA 9/49121

USSR/Geography
Peat Resources

Sep 48

"Peat Bogs in the Vicinity of Mugodzhar," F. N.
Rusanov, Dr Biol Sci, $\frac{1}{2}$ p

"Priroda" No 9

Describes large peat bogs 50 miles from Baba on
Orenburg RR, near watershed of Or, Baba, and Ilekha
Rivers. Lists types of sphagnum found in peat.
Describes characteristics, properties of deposits.

9/49121

RUSANOV, F. N.

58/49T6

USSR/Biology

Nov/Dec 48

Bogs
Botany

"Sphagnum Bogs of the Natural Landmark Dzhaiksy-Urkach," F. N. Rusanov, Bot Garden, Acad Sci Uzbek SSR, Tashkent, 5 pp

"Botan Zhur" Vol XXXIII, No 6

Dzhaiksy-Urkach has an unparalleled vegetation zone of fragments of sphagnum bogs and birch forest. It is one of the extreme southern outposts of northern vegetation in central Kazakh SSR and is the location of real sphagnum and

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USSR/Biology (Contd)

Nov/Dec 48

Fragments of sphagnum bogs closest to Central Asia and Uzbek SSR. It is northwest of the point 49 00 N 29 00 E and is 50 km north of the Emba-Orenburg railroad, northwest of Mugodzhar mountains. Submitted 18 Dec 47.

58/49T6

RUSANOV, F. N.

Rusanov, F. N. - "The experience of fifteen years introduction of exotic specimens under the prevailing conditions of Tashkent, " Trudy Botan. sada (Akad. nauk Uzbek. SSR), Issue 1, 1949, p. 3-68, - Bibliog: 8 items

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

RUSANOV, F. N.

Rusanov, F. N. "The behavior of short-day plants during the summer of 1947".
Doklady Akad. nauk UzSSR, 1949, No 2, p. 21-23, (Resume in Azerbaijani).

SO: U-1392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

RUBINOV, F. N.

28556

Khvocynye Porody Mlya Lyesonasazhdyenyy V Uzbyeki Stanye Izvestiya Akad Nauk
UzSS, 1949, No. 2, .70-72 Ryezyumye Na Uzbyek Yaz

SO: LETOPIS NO. 38

RUSANOV, F. N.

22581. RUSANOV, F. N. Novoye dekorativnoye rasteniye-nedzvedskiya. Byulleten'
flav. botan. Sada, vyp. 2, 1949, S. 97-98

SO: LETOPIS' No. 30, 1949

RUSANOV, F. N.

32613. RUSANOV, F. N. Nasazhdeniya na otvalakh krupnykh irrigatsionnykh sistem, izvestiya akad. nauk uzssr, 1949, No 3, s. 33-35, - rezyume na uzbek, yaz.

SO: Letopis' Zhurnal' nykh Statey, Vol. 44

RUSANOV, F. N.

30243

Plodonoshyeniye ekzotichyeskikh dryevyesno-kustarnikovyykh porod v
Srednyey Azii. Byullyetyen, Glav. botan. sada, vyp. 3, 1949,
s. 69-70.

SO: LETOPIS' NO. 34

RUSANOV, F. N.

Agriculture

Landscape gardening in the architecture of cities in Uzbekistan.
Tashkent, AN Uzbekskoy SSR, 1951.

9. Monthly List of Russian Accessions, Library of Congress, October 1952 ~~1953~~, Uncl.

RUSANOV, F. N.

Packing for Shipment

Packing and labeling of plants. Biul. Glav. bot.
sada No. 10, 1951.

Monthly List of Russian Accessions, Library of Congress, December 1952, Unclassified.

1. RUSANOV, F. N.
2. USSR (600)
4. Parasitic Plants
7. Culture of several parasitic plants in the Tashkent Botanical Garden. Biul.Glav.bot. sada no.11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

1. RUSANOV, F. N.
2. USSR (600)
4. Botanical Gardens - Tashkent
7. Botanical garden of the Academy of Sciences of the Uzbek S.S.R. serves communist construction projects. Biul.Glav.bot.sa no. 13, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

RUSANOV, F.N.

Notes on the yuccas. Biul.Glav.bot.sada no.14:86-89 '52. (MLRA 6:5)

1. Tashkentskiy botanicheskiy sad Akademii nauk Uzbekskoy SSR. (Yucca)

RUSANOV, F. N.

Testudinaria

Tortoise plant (Testudinaria elephantipes Salisb). Priroda 41 No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

NAZAREVSKIY, S.I.; MAKAROV, S.N.; PILIPENKO, F.S.; GERASIMOV, M.V.; IL'INSKAYA, M.L.; VEKSLER, A.I., [deceased]; VASIL'YEV, I.M.; IL'INA, N.V.; SOKOLOV, S.Ya.; LOZINA-LOZINSKAYA, A.S.; SAAKOV, S.G.; ZALESSEKIY, D.M.; AYRORIN, N.A.; IVANOV, M.I.; PRIKLADOV, N.V.; SOBOLEVSKAYA, K.A.; SALAMATOV, M.N.; MALINOVSKIY, P.I.; LUCHNIK, A.I.; KRAVCHENKO, O.A.; VEKHOV, N.K.; GROZDOV, B.V.; MASHKIN, S.; BOSSE, G.G.; PALIN, P.S., (g. Shuya, Ivanovskoy oblasti); MATUKHIN; ZATVARNITSKIY, G.F.; GRACHEV, N.G.; CHERKASOV, M.I.; KIRKOPULO, Ye.N.; LEVITSKAYA, A.M.; GRISHKO, N.N.; LIKHVAR', D.F. VIL'CHINSKIY, N.M.; LYPA, A.L.; OREKHOV, M.V.; SHCHERBINA, A.A.; TSYGANKOVA, V.Z.; BARANOVSKIY, A.L.; GEORGIYEVSKIY, S.D.; STEPUNIN, G.A. OZOLIN, E.P.; LUKAYTENE, M.K.; KOS, Yu.I.; VAIL'YEV, A.V.; RUKHADZE, P.Ye.; VASHADZE, V.N.; SHANIDZE, V.M.; MANDZHAVIDZE, D.V.; KORKESHKO, A.L.; KOLESNIKOV, A.I., (g. Sochi); SERGEYEV, L.I.; VOLOSHIN, M.P.; RYBIN, V.A.; IVANOVA, B.I.; RYABOVA, T.I.; GAREYEV, E.Z.; RUSANOV, F.N.; BOCHANTSEVA, Z.P.; BLINOVSKIY, K.V.; KLYSHEV, L.K.; MUSHEGYAN, A.M.; LEONOV, L.M.

Talks given by participants in the meeting. Biul.Glav.bot.sada no.15:
85-182 '53. (MLRA 9:1)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR (for Makarov, Pilipenko, Gerasimov, Il'inskaya, Veksler); 2. Akademiya komunal'nogo khozyaystva imeni K.D. Pamfilova for Vasil'yev); 3. Vsesoyuznaya sel'skokhozyaystvennaya vystavka (for Il'ina); 4. Botanicheskiy sad Botanicheskogo instituta imeni V.L.Komarova Akademii nauk SSSR (for Sokolov, Lozina-Lozinskaya, Saakov); 5. Botanicheskiy sad Leningradskogo
(continued on next card)

NAZAREVSKIY, S.L.---(continued) Card 2.

gosudarstvennogo ordena Lenina universiteta (for Zalesskiy); 6. Pol'yarno-Al'piyskiy botanicheskiy sad Kol'skogo filiala imeni S.M. Kirova Akademii nauk SSSR (for Avrorin); 7. Botanicheskiy sad pri Tomskom gosudarstvennom universiteta (for Ivanov); 8. Botanicheskiy sad pri Tomskom gosudarstvennom universiteta imeni V.V. Kuybysheva (for Prik-ladov); 9. Tsentral'nyy Sibirskiy botanicheskiy sad Zapadno-Sibirsko-go filiala Akademii nauk SSSR (for Salamatov, Sobolevskaya); 10. Bo-tanicheskiy sad Irkutsko gosudarstvennogo universiteta imeni A.A. Zhdanova (for Malinovskiy); 11. Altayskaya plodovo-yagodnaya opyt-naya stantsiya (for Luchnik); 12. Bashkirskiy botanicheskiy sad (for Kravchenko); 13. Lesostepnaya selektsionnaya opytnaya stantsiya deko-rativnykh kul'tur tresta Goszelenkhoz Ministerstva kommunal'nogo kho-zyaystva RSFSR (for Vekhov); 14. Bryanskiy lesokhozyaystvennyy insti-tut (for Grozdov); 15. Botanicheskiy sad pri Voronezhskom gosudar-stvennom universitete (for Mashkin); 16. Orekhovo-Zuyevskiy pedago-gicheskiy institut (for Bosse); 17. Botanicheskiy sad pri Rostovskom gosudarstvennom universitete imeni V.M. Molotova (for Matukhin); 18. Botanicheskiy sad Kuybyshevskogo gorodckogo otdela narodnogo obrazo-vaniya (for Zatvarnitskiy); 19. Zoobotanicheskiy sad pri Kazanskom universitete (for Grachev); 20. Gosudarstvennyy respublikanskiy proektnyy institut "Giprokommunistroy" (for Cherkasov); 21. Botani-cheskiy sad Odesskogo gosudarstvennogo universiteta imeni I.I. Mechni-kova (for Kirkopulo); 22. Botanicheskiy sad pri Dnepropetrovskom gosudarstvennom universitete (for Levitskaya); 23. Botanicheskiy sad
(continued on next card)

NAZAREVSKIY, S.L.---(continued) Card 3.

Akademii nauk USSR (for Grishko, Likhvar', Vil'chinskiy); 24. Kiyevskiy sel'skokhozyaystvennyy institut (for Lypa); 25. Botanicheskiy sad Chernovitskogo gosudarstvennogo universiteta (for Orekhov); 26. Botanicheskiy sad pri L'vovskom gosudarstvennom universitete imeni Iv. Franko (for Shcherbina); 27. Botanicheskiy sad Khar'kovskogo gosudarstvennogo universiteta imeni A.M. Gor'kogo (for TSygan-kova); 28. Botanicheskiy sad Zhitomirskogo sel'skokhozyaystvennogo instituta (for Baranovskiy); 29. Botanicheskiy sad Akademii nauk Belorusskoy SSR (for Georgiyevskiy); 30. Institut biologii Akademii nauk Belorusskoy SSR (for Stepunin); 31. Botanicheskiy sad Akademii Litovskoy SSR (for Lukaytene); 32. Botanicheskiy sad Latviyskogo gosudarstvennogo universiteta (for Ozolin); 33. Kabardinskiy krayevedcheskiy botanicheskiy sad (for Kos); 34. Sukhumskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Vasil'yev, Rukhadze); 35. Batumskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Shanidze); 36. Tbilisskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Mandzhavidze); 37. Sochinskiy park Dendrariy (for Korkeshko); 38. Gosudarstvennyy Nikitskiy botanicheskiy sad imeni V.M. Molotova (for Sergeyev, Voloshin); 39. Krymskiy filial Akademii nauk SSSR (for Rybin); 40. Botanicheskiy sad Moldavskogo filiala Akademii nauk SSSR (for Ivanova); 41. Botanicheskiy sad Botanicheskogo instituta Akademii nauk Tadzhikskoy SSR (for Ryabova); 42. Botanicheskiy sad Kirgizskogo filiala Akademii nauk SSSR (for Gareyev); 43. Botanicheskiy
(continued on next card)

NAZAREVSKIY, S.L.---(continued) Card 4.

sad Akademii nauk Usbekskey SSR (for Rusanov, Bochantseva); 44.
Botanicheskiy sad Akademii nauk Turkmenskoy SSR (for Blinovskiy);
45. Respublikanskiy sad Akademii nauk Kazakhskoy SSR (for Klyshev,
Mushegyan).

(Botanical gardens)

RUSANOV, F.N., doktor biologicheskikh nauk.

Main arrangements for planning a republic academy botanical
garden in Tashkent. Trudy Bot.sada AN Uz.SSR no.4:3-24 '54.
(Tashkent--Botanical gardens) (MLRA 9:7)

RUSANOV, F.N., doktor biologicheskikh nauk.

Principal concepts and some methods of plant introduction.
Trudy Bot.sada AN Uz.SSR no.4:25-34 '54. (MIRA 9:7)
(Plant introduction)

RUSANOV, Fedor Nikolayevich; DROBOV, V.P., otvetstvennyy redaktor; MEDOVAR,
IS.I., redaktor izdatel'stva; GOR'KOVAYA, Z.P., tekhnicheskii
redaktor

[Trees and shrubs of the botanical garden of the Uzbek Academy of
Sciences] Derev'ia i kustarniki botanicheskogo sada Akademii nauk
Uzbekskoi SSR. Tashkent, Izd-vo Akademii nauk UzSSR. Pt.1. [North
American trees and shrubs] Severoamerikanskii derev'ia i kustarniki.
1955. 95 p. (MLR 9:10)

(Tashkent--Botanical gardens)
(America--Botany)

RUSANOV, F.N.

Colorful flowering parasitic plant, *Phelipaea coccinea* Poir., and its cultivation. Biul.Glav.bot.sada no.22:86-88 '55. (MLRA 9:5)

1. Botanicheskiy sad Akademii nauk Uzbekskoy SSR.
(Parasitic plants)

M-8

Rusanov F.N.
USSR/Cultivated Plants - Decorative.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 11144

Author : Rusanov, F.N., Zemlyanova, M.I.

Inst : Botanical Garden of the Academy of Sciences UzbekSSR

Title : Results of the Introduction of Grassy Plants into the
Tashkent Botanical Garden.

Orig Pub : Tr. Botan. sada. AN UzSSR, 1956, No 5, 15-35

Abstract : Descriptions are given of 35 decorative grassy plants
(the greater part of them exotics) which were tested
between 1950 and 1954 with the aim of introducing them
for beautification purposes into Uzbekistan. The des-
cription deals with the habits of the plants, their
decorative qualities, and their reactions to local con-
ditions.

Card 1/1

RUSANOV, F.N.; GOMOLITSKIY, P.A.

Survey of the activities of the Botanical Garden of the Academy of
Sciences of the Uzbek S.S.R. during the ten years from 1943 to 1953.

Trudy Bot.sada AN Uz.SSR no.5:3-13 '56.

(MIRA 10:2)

(Tashkent--Botanical gardens)

HUSANOV, F.N.; ZEMLYANOVA, M.I.

Current results of the primary introduction of herbaceous plants in
the Botanical Garden of Tashkent. Trudy Bot.sada AN Uz.SSR no.5:15-35
'56. (MLRA 10:2)

(Tashkent--Plant introduction) (Plants, Ornamental)

RUSANOV, F.N.

~~Trudy Bot. sada AN Uz. SSR no. 5:37-40 '56.~~
The beautiful parasitic plant *Phelipaea coccinea* Poir. in the Botanical
Garden of the Academy of Sciences of the Uzbek S.S.R. in Tashkent.
(MLBA 10:2)
(Tashkent--Broom rape)

RUSANOV, F.N.

RUSANOV, F.N.

Results of plant introduction and acclimatization in Central Asia.
Trudy Bot.inst.Ser. 6 no.5:59-63 '57. (MIRA 10:10)

1.Botanicheskiy sad AN UzSSR.
(Soviet Central Asia--Plant introduction)

RUSANOV, F.N.

Some aquatic plants of Maritime Territory. Biul. Glav. bot. sada
no. 27: 118-119 '57. (MLRA 10:5)

1. Botanicheskiy sad Akademii nauk Uzbekskoy SSR.
(Lefu Valley--Aquatic plants)

RUSANOV, F.N.

Scientific activities at the Botanical Garden of the Central Asia
State University and the Academy of Sciences of the Uzbek S.S.R.
Izv. AN Uz. SSR. Ser. biol. nauk no.4:27-33 '57. (MIRA 11:9)
(Tashkent--Botanical gardens)

USSR/Cultivated Plants - Introduction and Acclimatization.

11-2

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39156

Author : Rusanov, F.N.

Inst : Botanical Institute AS USSR.

Title : The Results of the Introduction and Acclimatization of Plants in Central Asia.

Orig Pub : Tr. Botan. in-ta, AN USSR, 1957, ser. 6, vyp. 5, 52-63

Abstract : By acclimatization the author means human activity directed to the alteration of the nature of introduced plants, without which this alteration could not survive under new conditions of life. The natural process of acclimatization of plants lasts for centuries and does not satisfy the demands of the national economy. Over 150 species of trees and underbrush were introduced in Central Asia before the revolution and over 600 - after the October

Card 1/2

ARTYUSHENKO, Z.T.; VASIL'YEV, I.V.; GZYRYAN, M.S.; GOLOVACH, A.G.; GHUBOV,
V.I.; ZAMYATNIN, B.N.; PIDOTTI, O.A.; PILIPENKO, F.S.; POLETIKO,
O.M., kand.biolog.nauk; RODIONENKO, G.I.; ~~RUSANOV, T.N.~~; SAAKOV,
S.G.; SOKOLOV, S.Ya., prof., doktor biolog.nauk, red.; FEDOROV,
A.I.A.; SHIPCHINSKIY, N.V. [deceased]; SHUL'GINA, V.V.; SHUKHOBODSKIY,
B.A.; GOLOVNIN, M.I., red. izd-va; KRUGLIKOVA, N.A., tekhn.red.

[Trees and shrubs of the U.S.S.R.; wild, cultivated, and promising
exotic trees and shrubs] Derev'ia i kustarniki SSSR; dikorastushchie,
kul'tiviruemye i perspektivnye dlia introduktsii. Moskva. [Vol.4.
Angiosperms: Leguminosae - Punicaceae] Pokrytosemennye: Semeistva
bobovye-granatovye. 1958. 973 p. (MIRA 11:12)

1. AN SSSR. Botanicheskiy institut.
(Angiosperms) (Trees) (Shrubs)

~~RUSANOV, F.N.~~

Building the Botanical Garden of the Academy of Sciences of the Uzbek
S.S.R. Biul. Glav. bot. sada no.30:3-6 '58. (MIRA 11:6)

1. Respublikanskiy botanicheskiy sad Akademii nauk Uzbekskoy SSR.
(Tashkent--Botanical Gardens)

RUSANOV, F.N.

Introduction of trees and shrubs in Central Asia. Biul. Glav.
bot. sada no.31:24-31 '58. (MIRA 12:5)

1. Botanicheskiy sad AN Uzbekskoy SSR.
(Soviet Central Asia--Plant introduction)
(Trees) (Shrubs)

RUSANOV, F.N.

Case of unusual flowering in the Adam's-needle. Biul.Glav.
bot.sada no.32:114-115 '58. (MIRA 12:5)

1. Botanicheskiy sad AN Uzbekskoy SSR.
(Tashkent--Yucca) (Plants, Flowering of)

RUSANOV, F.N.

Spontaneous hybrids in the collections of introduced plants.
Biul.Glav.bot.sada. no.58:34-36 '65.

(MIRA 18:12)

1. Botanicheskiy sad AN Uzbekskoy SSR, Tashkent.

POSSAN V, F.N.

Asimina triloba (L.) DuRoi. in Tashkent. Biul. Glav. bot.
sada no.56:34-35 '64. (HERB 18:5)

1. Botanicheskiy sad AN Uzbekskoy SSR, Tashkent.

RUSANOV, F.N.

Cultivation of wild ornamental plants. Biri. Glav. bot.
sada no. 53:37-39 '64. (MIRA 17:6)

1. Botanicheskiy sad Akademii nauk Uzbekskoy SSR, g. Tashkent.

RUSANOV, F. N.

"Works of the Botanical Garden of the Academy of Sciences in Tashkent in the field of introduction, acclimatization and cultivation of plants."

report submitted for 10th Intl Botanical Cong, Edinburgh, 3-12 Aug 64.

AS Uzbek SSR.

RUSANOV, F.N.; RAYKOVA, I.A., doktor biol. nauk, otv. red.;
LYUBETSKAYA, R.Kh., red.; KARABAYEVA, Kh.U., tekhn.
red.

[Botanical Garden of the Academy of Sciences of the
Uzbek S.S.R.] Botanicheskii sad AN UzSSR. Tashkent,
Izd-vo AN UzSSR, 1963. 74 p. (MIRA 17:1)

RUSANOV, F.N.

Interspecific hybrids of seven species of Yucca. Introd.1
akklim.rast. no.1:5-110 '62' (MIRA 16:2)
(Tashkent--Yucca breeding)

RUSANOV, F.N.

Variability of fruits of the *Niedswedzkia semiretschenskia* B.
Fedtsch. and some biological movements of its early growth.
Trudy TashGU no.187:140-148 '61. (MIRA 15:3)

1. Botanicheskiy sad AN UzSSR.
(Chu-Ili Mountains--Pedaliaceae)

RUSANOV, F.N.

Plants of forest reserves and cities of China. Biul.Glav.bot.
sada no.44:91-95 '61. (MIRA 15:2)

1. Botanicheskiy sad AN Uzbekskoy SSR, Tashkent.
(China—Botany)

RUSANOV, F. N.

New data on *Hieracium semiretschenskia* E. Fedtsch. Biol.
Glas. obt. sad. no. 40: 52-57 '61. (HRA 14:10)

1. Botanicheskiy sad AN Uzbekskoy SSR, Tashkent.
(Pedaliaceae)

RUSANOV, F.N.

Hybridization and selection of hibiscus and yucca species.
Biul. Glav. bot. sada no.41:36-40 '61. (MIRA 14:11)

1. Botanicheskiy sad AN Uzbekskoy SSR, Tashkent.
(Hibiscus breeding)
(Yucca breeding)

RUSANOV, F.N., prof. (Tashkent)

Let's protect this rare relict of Kazakhstan. Priroda 50 no.1:66-67
Ja '61. (MIRA 14:1)

(Kazakhstan--Sesame)

BOCHANTSEV, V.P.; BUTKOV, A.Ya.; VVEDENSKIY, A.I.; DROBOV, V.P. [deceased];
KOROVIN, Ye.P., akademik; KOROTKOVA, Ye.Ye.; KUDRYASHEV, S.N.
[deceased]; LINCHEVSKIY, I.A.; MAUER, F.M.; PAZIY, V.K.; POPOV,
M.G. [deceased]; ~~RUSANOV, F.N.~~; SUMNEVICH, G.P. [deceased]; ZAKIROV,
K.Z., glavnyy red.; MUZAFAROV, A.M., red.; CHERNYAVSKAYA, A.B.,
red.izd-va; SMOL'NIKOVA, B.Kh., red.izd-va; BARTSEVA, V.P., tekhn.red.

[Flora of Uzbekistan] Flora Uzbekistana. Tashkent, Izd-vo Akad.
nauk Uzbekskoi SSR. Vol.4. Red.toma A.I.Vvedenskii, Soat.V.P.
Bochantsev i dr. 1959. 506 p. (MIRA 13:8)

1. AN UzSSR (for Korovin, Zakirov). 2. Uzbekskaya Akademiya sel'sko-
khozyaystvennykh nauk (for Zakirov).
(Uzbekistan--Dicotyledons)

RUSANOV, F.N., prof.; RAYKOVA, I.A., otv.red.; CHERNYAVSKAYA, A.B.,
red.izd-va; PARTSEVA, V.P., tekhn.red.

[Initial introduction of Yucca species in Uzbekistan] Pervichnaya
introduktsiya vidov roda Yucca v Uzbekistan. Tashkent, Izd-vo
Akad.nauk Uzbekskoi SSR, 1959. 109 p. (MIRA 13:12)

1. Tashkentskiy botanicheskiy sad (for Rusanov). 2. Chlen-
korrespondent AN UzSSR (for Raykova).
(Uzbekistan--Yucca)

RUSANOV, F.N., otv.red.; GOR'KOVAYA, Z.P., tekhn.red.

[List of seeds offered for exchange by the Botanical Garden of the Academy of Sciences of the Uzbek S.S.R.] Perechen' semian, predлагаemykh v obmen Botanicheskim sadom Akademii nauk UzSSR. Tashkent, 1958. 53 p. (MIRA 13:6)

1. Akademiya nauk Uzbekskoy SSR, Tashkent.
(Seeds--Catalogs)

RUSANOV, F.N.

New interrelationships resulting from new conditions of life exemplified by the yucca. Uzb.biol.zhur. no.5:74-75 '59. (MIRA 13:4)
(YUCCA) (FERTILIZATION OF PLANTS)

HUSANOV, F.N.

[Central Asian tamarisk; an attempt at a comprehensive botanical study of Central Asian species of r.Tamarix] Sredneaziatskie tamariksy; opyt kompleksnogo botanicheskogo izucheniia sredne-aziatskikh predstavitelei r.Tamarix. Tashkent, Izd-vo AN UzSSR, 1949. 156 p. (MIRA 13:6)

(Tamarisk)

RUSINOV, G.

RUSINOV, G.

Cooperation of automobile repairing plants. Avt.transp. 35
no.7:33 J1 '57. (MLR: 10:8)
(Automobiles--Maintenance and repair)

RUSANOV, G.A.

Experimental replacement of defects of the femoral diaphysis with bone chips. Khirurgiia 34 no.2:19-23 F '58. (MIRA 11:4)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (nach. - chlen-korrespondent AMN SSSR prof. A.N. Maksimenkov) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

(FEMUR, dis.

diaphysiol defects, replacement with autoplasic bone chips in dogs (Rus))

(BONE AND BONES, transpl.

autoplasic bone chips, in diaphysial femoral defects in dogs (Rus))

RUSANOV, G.A., kandidat meditsinskikh nauk, Leningrad, Stremiannaia
ul. d. 11, kv.9.

Experimental regeneration of bones with bone chips. Vest.khir.
75 no.5:15-23 Ja '55. (MLRA 8:10)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii
(Nach.-prof. A.N.Maksimov) Voenno-Meditsinskoy ordena
Lenina akademii im.S.M. Kirova.

(BONE TISSUE, physiology,
regen.from bone chips)

(REGENERATION,
bone, from bone chips)

RUSANOV, G. A., Cand Tech Sci -- "Determination of the resistance of piles by the dynamic method, taking into account elastic deformations." Mos, 1961. (Min of Higher and Sec Spec Ed RSFSR. Mos Order of Labor Red Banner Eng-
Construct
~~Blag~~ Inst im V. V. Kuybyshev) (KL, 8-61, 248)

- 297 -

AMINEV, A.M., prof.; BEREZOV, Ye.L., prof.; BISENKOV, N.P., kand. med. nauk; BRAYTSEV, V.R., prof.; DEYNEKA, I.Ya., prof.; DYSKIN, Ye.A., kand. med. nauk KAZANSKIY, V.I., prof.; KARAVANOV, G.G., prof.; LEVIN, M.M., prof.; MAKSIMENKOV, A.N., prof.; MAYAT, V.S., prof.; NAPALKOV, P.N., prof.; ROZANOV, B.S., prof.; RUSANOV, A.A., prof.; RUSANOV, G.A., kand. med. nauk; FILATOV, A.N., prof.; CHUKHRIYENKO, D.P., prof.; SHILOVTSEV, S.P., prof.; PETROVSKIY, B.V., prof., otv. red.; MEL'NIKOV, A.V., prof., red. toma; SUVOROVA, T.A., dots., red.; MIROTVORTSEVA, K.S., red.; RULEVA, M.S., tekhn. red.

[Multivolume manual on surgery] Mnogotomnoe rukovodstvo po khirurgii. Moskva, Medgiz. Vol.7. [Surgery of the abdominal wall and organs of the abdominal cavity, the stomach and intestines] Khirurgiya briushnoi stenki, organov briushnoi polosti-zheludka i kishechnika. 1960. 746 p. (MIRA 15:3)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Braytsev, Petrovskiy, Mel'nikov). 2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Maksimenkov, Filatov).
(ABDOMEN--SURGERY)

RUSANOV, G. K.,

Spektral'nyy Analiz Rud i Mineralov s Prilozheniyem Atlas Spektral'nykh
Liniy (Spectral Analysis of Ores and Minerals With Appendix Atlas of'
Spectral Lines), Moscow, Gosgeolizdat, 1948.

HUSANOV, I.

Individual spoon. Stomatologiya, Sofia No.1:60 1955.

1. Zubolekar pri Okruzhnata bolnitsa - gr. Oriakhovo, Gl. 1-r:
T. Baev.

(DENTISTRY, apparatus and instruments,
individual spoon for dent. exam.)

RUSANOV, I.

Rusanov, I. "Ivan Markin" (Hero of Socialist Labor, chief mechanic of the Kosta-Khtagurovo MTS. Outline), Sov. Osetiya, No.1 -2, 1948, p. 237-44.

SO: U-3261, 10 April 53, (Letopis 'zhurnal 'nykh Statey No. 12, 1949)

VOZIYANOVA, Z.A., tekhnik; RUSANOV, I.A., inzh.

Specialists in decisive coal mining sections. Ugol' prom.
no.3:36-38 My-Je '62. (MIRA 18:3)

ACCENT: AT6034035

SOURCE CODE: UR/0000/66/000/000/0126/0130

AUTHORS: Zakharchenya, B. P.; Rusanov, I. B.; Ryskin, A. Ya.

ORG: none

TITLE: Magneto-optic effects in the spectrum of a $\text{CaF}_2\text{-Eu}^{2+}$ crystal

SOURCE: Simpozium po spektroskopii kristallov, sodержashchikh redkozemel'nyye elementy i elementy gruppy zheloza. Moscow, 1965. Spektroskopiya kristallov (Spectroscopy of crystals); materialy simpoziuma. Moscow, Izd-vo Nauka, 1966, 126-130

TOPIC TAGS: magneto-optic effect, Zeeman effect, electron paramagnetic resonance, Hamiltonian

ABSTRACT: Splitting of the resonance line for $\text{CaF}_2\text{-Eu}^{2+}$ was studied in both absorption and emission spectra. When the magnetic field was parallel to the fourth-order axis (H_0 parallel to $[001]$), the spectrogram plainly revealed asymmetry in intensity of the Zeeman component relative to the line not affected by the field. This asymmetry is clearly due to thermal freezing of the ions in strong magnetic fields. At low temperatures this occurs on Zeeman sublevels of the ground and excited states. From the experimental data on Zeeman splitting of λ_0 4130 Å with different crystal orientations in the magnetic field, it is established that the behavior of the excited level is defined by a spin Hamiltonian of the type

$$\mathcal{H} = g\beta H S_z + \beta H S_x,$$

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ACC NR: AT6034035

where g and β are parameters determined from experiment and are related to the Lande splitting factor. It was found that $|g| = 3.9 \pm 0.1$ and $|\beta| = 2.4 \pm 0.1$, and that the two are of opposite signs. Tentative theoretical considerations do not agree with this result, but the authors do not consider this too serious since the premises for the theory of interaction between mixed configurations and the crystalline field are highly speculative. This scheme permits examination of a number of possibilities in optical detection of electron paramagnetic resonance in $\text{CaF}_2\text{-Eu}^{2+}$. Detection of resonance may be due to selective reabsorption of the Zeeman component of emission. It may also be due to competition in intensities of resonance Zeeman transitions in absorption and emission. Orig. art. has: 4 figures and 1 equation.

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ACCESSION NR: AP5006450

8/0051/65/018/003/0535/0538

AUTHOR: Zakharchenya, B. P.; Kanskaya, L. M.; Rusanov, I. B.

TITLE: Optical detection of spin relaxation in crystals containing paramagnetic ions

SOURCE: Optika i spektroskopiya, v. 18, no. 3, 1965, 535-538

TOPIC TAGS: spin relaxation, relaxation time, paramagnetic ion, spin lattice relaxation, field dependence

ABSTRACT: The authors illustrate the feasibility of using the Zeeman effect for narrow emission and absorption lines in optical spectra of paramagnetic ions in crystals, at helium temperatures and sufficiently strong fields, to obtain information on variations of spin relaxation as a function of the magnetic field intensity. The feasibility is demonstrated on the basis of experiments performed on the Zeeman B-line in ruby crystal (Cr^{3+} concentration $\sim 0.2\%$) at liquid helium temperature in strong pulsed magnetic fields, using a technique described by one of the authors (Zakharchenya, with A. I. Sibilev, Opt. i spektr. v. 12, 5, 1962). By using a short light pulse of 30 μsec it was possible to follow the variation

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of the Zeeman-component intensities at different instants of time following the triggering of the field pulse. The results show that thermal equilibrium could be established in the system consisting of four Zeeman sublevels within a time 8×10^{-4} sec. Methods of improving the accuracy are discussed. In the absorption and emission spectrum of the crystal $\text{CaF}_2\text{-Eu}^{2+}$, with Eu^{2+} concentration smaller than 0.01%, a very narrow resonant line was observed at $4130 \text{ \AA}$, and a study of the Zeeman effects for this line made in pulsed fields of 100 koe intensity yields a relaxation time on the order of 1.5×10^{-4} sec. The values obtained for the relaxation times in the two compounds are much lower than those given by EPR measurements, possibly indicating a strong field dependence of the relaxation time. It is pointed out that these examples are merely qualitative illustrations of the possibility of optical detection of spin relaxation in crystals, and that the line width must be narrow enough for the field to be regarded as constant. Orig. art. has: 2 figures.

[02]

ASSOCIATION: none

SUBMITTED: 14 May 64

ENCL: 00

SUB CODE: SS, NP

NO REF SOV: 007

OTHER: 005

ATD PRESS: 3219

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L 63960-65 EWT(1)/EWT(m)/EPF(c)/T/EWP(t)/EEC(b)-2/EWP(b) IJP(c)

JD/JW/GG

ACCESSION NR: AP5016172

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539.184.28:548.0

AUTHOR: Zakharchenya, B. P.; Rusanov, I. B.; Ryskin, A. Ya.

TITLE: The Zeeman effect of the resonance line (4130 Å) in the spectrum of a $\text{CaF}_2\text{-Eu}^{2+}$ crystal

SOURCE: Optika i spektroskopiya, v. 18, no. 6, 1965, 999-1010

TOPIC TAGS: Zeeman effect, optical resonance, spectrum line, paramagnetic resonance, calcium fluoride laser, calcium fluoride

ABSTRACT: Variation in the intensities of the Zeeman components of the 4130 Å "resonance" line in the spectrum of a $\text{CaF}_2\text{-Eu}^{2+}$ crystal is experimentally studied at 4.2 and 1.7K. A Zeeman transition diagram is constructed on the basis of these experiments and group-theoretical analysis is conducted for the complex case of the Zeeman effect in a cubic crystal when the lower $^8S_{7/2}$ level is split into eight sublevels and the upper excited $^4F_8^+$ level is split into four sublevels. The behavior of the $^4F_8^+$ level in a magnetic field may be described by a spin Hamiltonian of the type $\mathcal{H} = g\mathbf{H}\mathbf{S} + \mathbf{H}\mathbf{S}^2$

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